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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,661	08/19/2003	William R. Kelley JR.	DKT01053	8203
42595	7590	12/01/2005	EXAMINER	
BORGWARNER INC. PATENT DEPARTMENT 3850 HAMLIN ROAD AUBURN HILLS, MI 48326-2872			RODRIGUEZ, SAUL	
			ART UNIT	PAPER NUMBER
			3681	

DATE MAILED: 12/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/643,661	KELLEY ET AL.	
	Examiner	Art Unit	
	Saúl J. Rodriguez	3681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 1-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-18 and 20-24 is/are rejected.
- 7) ☒ Claim(s) 19 and 25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

*Handwritten mark*

## DETAILED ACTION

The following office action is responsive to the communication filed September 1, 2005.

### *Election/Restrictions*

Applicant's election without traverse of Figures 2 and 3 in the reply filed on October 8, 2004 is acknowledged.

Claims 3, 4, and 8-14 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on October 8, 2004. Claims 1, 2, 5, 6, and 7 are also withdrawn as claiming a permanent magnet actuator (Fig. 5).

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

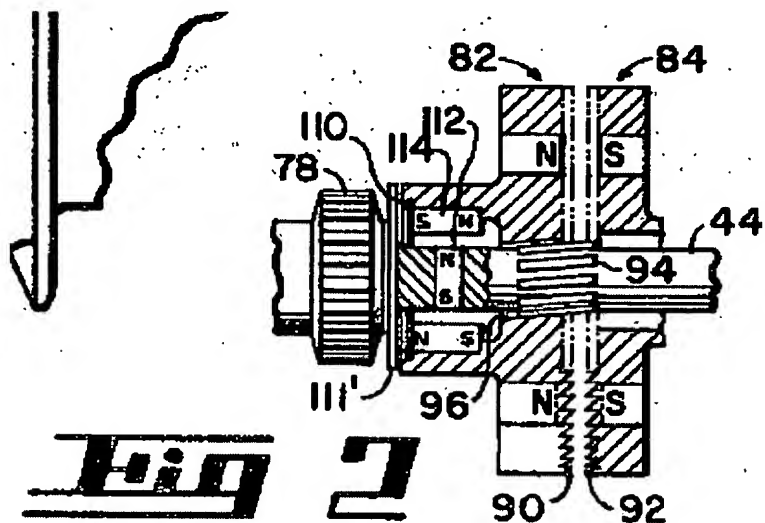
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 15, 17-18, 20-23 and, as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Bird et al. ('064).

Art Unit: 3681

Bird discloses a synchronizer and clutch (Fig. 2) comprising a first rotatable member (44) with axially extending engageable teeth (94), a second rotatable member (84) with engageable teeth (92), a clutch collar (87), a plurality of permanent magnets coupled to the second member, an induction member (98), a magnetic spring (102), and a spline between shafts (38, 44).



### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16 and 22, as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Bird et al. ('064) in view of Baxter, Jr. ('758).

Bird does not show the synchronizer/clutch being used in a transfer case. Even though it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations (*Ex parte Masham*, 2 USPQsd 1647 (1987)), it is noted that Baxter discloses a transfer case clutch with permanent magnets for controlling the relative rotation between a primary and secondary output shaft (36, 52). Then, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the clutch of Bird in a transfer case as taught by Baxter to control the rotation between the front and rear wheels of a vehicle.

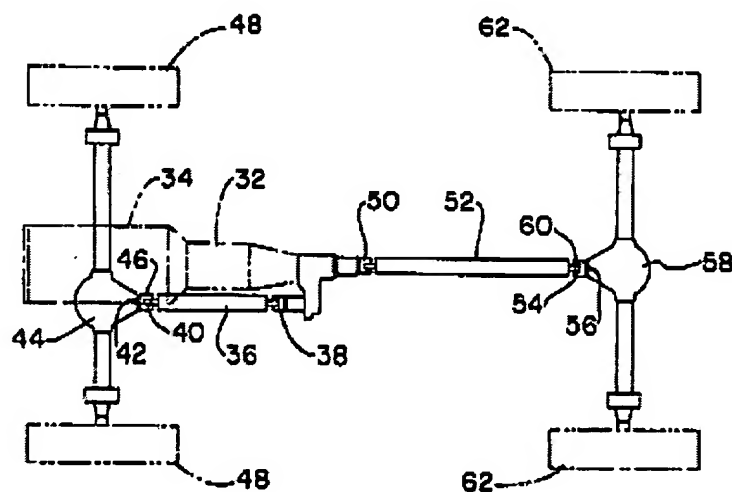
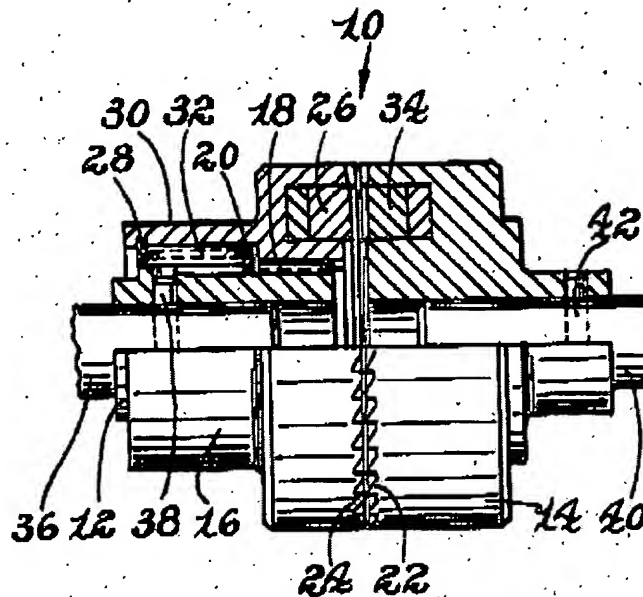


FIG. -7

Claim 24, as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Bird et al. ('064) in view of Miller ('373).

Bird does shows a magnetic spring instead of a compression spring for controlling the motion of the collar. Miller, on the other hand, discloses what is considered an art recognized equivalent compression spring (32) for controlling the movement of a collar on a magnetically synchronized clutch. Then, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use a coil spring in the device of Bird in view of Miller to provide if necessary an increasingly larger bias to the collar member.



#### ***Allowable Subject Matter***

Claim 19 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

Applicant's arguments filed September 1, 2005 have been fully considered but they are not persuasive.

Concerning applicant's argument that the prior art does not show all the claimed limitations, the examiner respectfully disagrees. Specifically, the alleged distinctions (e.g., bi-directional clutch, auto-engagement, etc.) are not an object of the claimed invention. On the contrary, it is believed that the outstanding claimed structure of the claim is fully disclosed by the prior art.

Concerning applicant's arguments related to Baxter, the combination was deemed necessary to address the intended use. The alleged compatibility issues do not obviate the taught sub-combination of the clutch by Bird.

Concerning applicant's arguments related to the Miller and bi-directional distinction, it is believed that such distinction is not claimed (see above arguments).

Therefore, for all the aforementioned reasons, the rejections are deemed proper.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

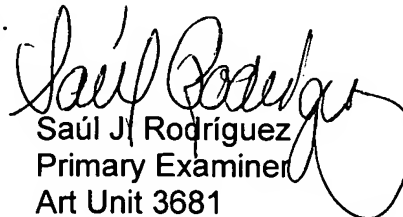
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saúl J. Rodríguez whose telephone number is (571) 272-7097. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on (571) 272-7095. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Saúl J. Rodríguez  
Primary Examiner  
Art Unit 3681

  
SJR